N311 Care Plan 3

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N311: Foundations of Professional Practice

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Demographics (5 points)

Date of Admission 10/11/23	Client Initials D.W.	Age 74	Gender F
Race/Ethnicity African American	Occupation City of Danville	Marital Status Married	Allergies Penicillins- Procaine Roflumilast
Code Status Full Code	Height 5'1"	Weight 139 lbs	

Medical History (5 Points)

Past Medical History: Acute Respiratory Failure with Hypoxia, Asthma, Chronic Obstructive Pulmonary Disease, Sleep Apnea

Past Surgical History: Adrenal Gland surgery, Hysterectomy, Carpal Tunnel Release, Tooth Extraction

Family History: Brother- Cancer, Sister- Cancer, Sister- Cancer, Son- Cancer, Father- Congestive Heart Failure, Brother- Emphysema, Brother- Heart Attack, Mother- Heart Disease, Brother-Stroke

Social History (tobacco/alcohol/drugs including frequency, quantity, and duration of use): The patient is a past smoker who quit 24 years ago, no alcohol, no drug use.

Admission Assessment

Chief Complaint (2 points): Shortness of Breath

History of Present Illness – OLD CARTS (10 points): The patient stated the onset of symptoms started Monday, 10/9/23. The location was generalized all over weakness with trouble breathing from her chest, pain rated a 5/10. The duration was constant with no relief. Characteristics were described as shortness of breath with chills. The aggravating

factor being moving around. Relieving factors were to remain still, and no treatment was done.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Pneumonia- right lower lobe due to infectious organism

Secondary Diagnosis (if applicable): N/A

Pathophysiology

Pathophysiology of the Disease, APA format (20 points):

Bacterial Pneumonia

Bacterial pneumonia contains bacteria that are robust microorganisms that usually enter the respiratory tract through the nasopharynx (Capriotti, 2023). The most common type of bacterial pneumonia is Streptococcus pneumoniae (Capriotti, 2023). Early diagnosis is vital with this bacterium because it is contagious, can be severe, and can cause meningitis and sepsis (Cleveland Clinic, 2022).

Streptococcus pneumoniae, commonly called S. pneumoniae, is a community-acquired pneumonia (Capriotti, 2023). It is a gram-positive diplococcal bacterium that settles in the nasopharynx. After they settle, they can move into the upper and lower respiratory tracts. If a client is healthy, clearance to get into the respiratory tract is prohibited; if the client has a history of smoking, allergies, bronchitis, or viral infection and allergies, it can lead to infection. Influenza is common before S. pneumoniae. Sometimes the infection can reach the blood, peritoneum, cerebrospinal fluid, or joint fluid after

mucosal violation. The population most vulnerable to this type of pneumonia are adults aged 60 and older and children under 2. It affects about 100 per 100,000 adults each year and has a mortality rate of 20% annually.

Signs and symptoms of S. pneumoniae include productive cough, pleuritic chest pain, dyspnea, tachypnea, tachycardia, sweats, fatigue, or blood in the sputum (Capriotti, 2023). Crackles can also be heard in the lung area that is infected.

Diagnostic tests include a sputum culture or chest x-ray (Capriotti, 2023). A lab test that measures procalcitonin levels in the blood or a serotype-specific urinary antigen test can also be used for diagnosis.

The pneumococcal vaccine that was introduced in the year 2000 has greatly reduced infections by greater than 90% (Capriotti, 2023).

Pathophysiology References (2) (APA):

References

Capriotti, T. (2023). *Davis Advantage for pathophysiology: Introductory concepts and clinical perspectives*. F.A. Davis Company.

professional, C. C. medical. (2022). *Pneumococcal disease: Causes, symptoms & treatment*. Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/24231-pneumococcal-disease

Laboratory Data (20 points)

If laboratory data is unavailable, values will be assigned by the clinical instructor

CBC <mark>Highlight All Abnormal Labs</mark>**—Explanations must be in complete sentences and contain in-text citations in APA format.**

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value

RBC	3.8-5.3	4.33	<mark>3.77</mark>	**The red blood count is slightly low-cannot find correlation to diagnosis.**
Hgb	12-15.8	12.5	<mark>10.9</mark>	**The hemoglobin is slightly low-cannot find correlation to diagnosis.**
Hct	36-47	38.2	<mark>33.6</mark>	**The patient does not have enough red blood cells (anemia). There are several types of anemia that can be caused by various medical conditions (Medlineplus, 2023).**
Platelets	140-440	159	<mark>128</mark>	**The platelets are slightly low-cannot find a correlation to diagnosis.**
WBC	4-12	<mark>14.90</mark>	<mark>21.10</mark>	**White Blood Count is low and is most likely due to an infection caused by bacteria (Medlineplus, 2023).**
Neutrophils	47-73%	<mark>90.9</mark>%	<mark>82.1</mark>%	**Neutrophils are the most common type of white blood cell. They are your body's primary defense against infection when bacteria enter your body (Medlineplus, 2023). The patient's neutrophils are elevated due to the bacteria.**
Lymphocytes	18-42%	<mark>5.3</mark>%	<mark>12.1</mark>%	**The patient has a low lymphocyte level but generally a high lymphocyte level would point to her bacterial infection (Medlineplus, 2023).**
Monocytes	4-12%	<mark>3.3</mark>	5.1	**Monocytes kill bacteria and boost your immune system. The patient's monocytes are low; therefore, they are not doing their job completely (Medlineplus, 2023).**
Eosinophils	0-5%	0.2	0.4	
Bands	0-1.0%	0.3	0.3	

Chemistry <mark>Highlight All Abnormal Labs</mark>—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	136-145	141	138	

K+	**3.5-5.1**	**4.0**	**3.5**	
Cl-	**98-107**	**106**	==**110**==	**High levels of chloride may be a sign of dehydration which could be related to the patient feeling weak and not eating or drinking much (Medlineplus, 2023).**
CO2	**22-30**	**29**	==**21**==	**Low CO2 is a sign of respiratory alkalosis, which means your blood is not acidic enough because of lung or breathing disorders (Medlineplus, 2023). This correlates to the patient and the breathing issues due to the pneumonia.**
Glucose	**70-99**	**107**	**106**	
BUN	**10-20**	**17**	==**6**==	**The BUN level is low - cannot find a correlation to diagnosis.**
Creatinine	**0.60-1.00**	**0.81**	**0.69**	
Albumin	**3.5-5.0**	**4.2**	**3.7**	
Calcium	**8.7-10.5**	**9.3**	**8.9**	
Mag	**1.6-2.6**	**N/A**	**1.7**	
Phosphate	**N/A**	**N/A**	**N/A**	
Bilirubin	**0.2-1.2**	**0.5**	**0.8**	
Alk Phos	**40-150**	**77**	**76**	

Urinalysis ==**Highlight All Abnormal Labs**==**—Explanations must be in complete sentences and contain in-text citations in APA format.**

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	N/A	**Yellow**	N/A	

pH	5.0-9.0	5	N/A	
Specific Gravity	1.003-1.030	1.028	N/A	
Glucose	Negative	Negative	N/A	
Protein	Negative	Negative	N/A	
Ketones	Negative	<mark>Trace!</mark>	N/A	Trace amount of ketones in urine. According to Medline Plus, having a small amount is normal (Medlineplus, 2023).
WBC	Negative	Negative	N/A	
RBC	N/A	N/A	N/A	
Leukoesterase	N/A	N/A	N/A	

Cultures <mark>Highlight All Abnormal Labs</mark>—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	N/A	N/A	N/A	
Blood Culture	N/A	N/A	N/A	
Sputum Culture	N/A	N/A	N/A	
Stool Culture	N/A	N/A	N/A	

Lab Correlations Reference (1) (APA):

References

U.S. National Library of Medicine. (2023). *Blood differential: Medlineplus medical test*. MedlinePlus.

https://medlineplus.gov/lab-tests/blood-differential/

Diagnostic Imaging

All Other Diagnostic Tests (10 points): X-ray of the chest (single view)-

Findings include interstitial opacities in the right lower lung- most likely pneumonia and mild left opacities, most likely atelectasis. A chest x-ray is necessary for the diagnosis of bacterial pneumonia (Capriotti, 2023).

Diagnostic Imaging Reference (1) (APA):

References

Capriotti, T. (2023). *Davis Advantage for pathophysiology: Introductory concepts and clinical perspectives*. F.A. Davis Company.

Assessment

Physical Exam (18 points) – <mark>HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS</mark>

General, Psychosocial/Cultural, and ONE focused assessment specific to the client is required. The student and instructor may complete these assessments together.

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:**	

Wounds: . **Braden Score:** **Drains present:** Y☐ N ☐ **Type:**	
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	.
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention:** Y ☐ N ☐ **Edema** Y ☐ N ☐ **Location of Edema:**	.
RESPIRATORY: **Accessory muscle use:** Y☐ N ☒ **Breath Sounds: Location, character**	Respiratory breaths are non-labored with a rate of 22. No accessory muscle use. Fine inspiratory crackles are heard in the mid/posterior region of the right lower lung. The patient states that she is having productive coughs with some pinkish/red coloring. The patient is short of breath with exertion.
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:**	.

Weight:
 	
Auscultation Bowel sounds:
 	
Last BM:
 	
Palpation: Pain, Mass etc.:
 	
Inspection:
 	
   Distention:
 	
   Incisions:
 	
   Scars:
 	
   Drains:
 	
   Wounds:
 	
Ostomy: Y ☐   N ☐
 	
Nasogastric: Y ☐   N ☐
 	
   Size:
 	
Feeding tubes/PEG tube   Y ☐   N ☐
 	
   Type:	

GENITOURINARY:
 	
Color:
 	
Character:
 	
Quantity of urine:
 	
Pain with urination: Y ☐   N ☐
 	
Dialysis: Y ☐   N ☐
 	
Inspection of genitals:
 	
Catheter: Y ☐   N ☐
 	
   Type:
 	
   Size:	

MUSCULOSKELETAL: **Neurovascular status:** **ROM:**	.

Supportive devices: **Strength:** **ADL Assistance:** Y☐ N☐ **Fall Risk:** Y☐ N☐ **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☐ **Needs support to stand and walk** ☐	
NEUROLOGICAL: **MAEW:** Y☐ N☐ **PERLA:** Y☐ N☐ **Strength Equal:** Y☐ N☐ if no - Legs ☐ Arms ☐ Both ☐ **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	The patient seems to be coping well. There are no distinct coping methods noticed except her husband and son visited providing moral support. **Religion is N/A** **The home environment seems stable.**

Vital Signs, 1 set (5 points) – <mark>HIGHLIGHT ALL ABNORMAL VITAL SIGNS</mark>

Time	Pulse	B/P	Resp Rate	Temp	Oxygen

12 pm	83	126/84	22	99.8	94%

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
12 pm	1-10	Chest	5	Shortness of breath with movement	Antibiotic therapy is being given for infectious organism

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
Coffee 8oz	Void x 4
Cranberry Juice 8oz	BM x 1
Water 2oz	
IV Piggyback Vancomycin – 250 mL	
Total = 850 mL	

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis

Nursing Diagnosis	Rationale	Interventions (2 per dx)	Outcome Goal (1 per dx)	Evaluation
• Include full nursing diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest priority to lowest	• Explain why the nursing diagnosis was chosen			• How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes,

				modifications to plan.
priority pertinent to this client				
1. Ineffective Airway Clearance related to the patient's inability to clear the airway and evidenced by the respiratory status of cough, respiratory rate, sputum, and crackle sounds (Phelps, 2023).	**The patient is still having issues clearing her airway. Reddish-pink blood is being coughed up and the respiratory rate is 22 which is over the normal limit.**	**1. Assess respiratory status at least every 4 hours (Phelps, 2023).** **2. Turn the patient every 2 hours. Position for maximum aeration of lungs (Phelps, 2023).**	**1. Adventitious breath sounds will be eliminated (Phelps, 2023).**	**The patient responded well and the airway remained clear with adequate ventilation or breath sounds (Phelps, 2023). The patient coughs and deep breathes to expectorant secretions (Phelps, 2023).**
3. **Ineffective Breathing Pattern as related to a history of a respiratory disorder (Chronic Obstructive Pulmonary Disease) and evidenced by the presence of cough and difficulty breathing. (Phelps, 2023).**	**The patient has a history of Chronic Obstructive Pulmonary Disease, and the patient still presents with difficulty breathing.**	**1. Observe for signs of respiratory distress (Phelps, 2023).** **2. Assist patient into comfortable positions, supporting upper extremities and elevating the head of the bed to promote chest expansion (Phelps, 2023).**	**1. The patient's respiratory rate will be within normal limits (Phelps, 2023).**	**The patient responded well and respiratory rates were within established limits (Phelps, 2023). Patient expressed comfort in breathing (Phelps, 2023).**

Other References (APA):

<div align="center">

References

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Phelps, L. L. (2023). *Nursing diagnosis reference manual*. Wolters Kluwer.

Concept Map (20 Points):

Subjective Data

-Pain level currently 5/10 out of a 1-10 scale

-Pain is continuous and started on 10/9/23

-Aggravating factors – upon physical exertion

- Relieving factors- remain still

-Productive coughs

-Short of breath

-Pinkish/reddish sputum

Nursing Diagnosis/Outcomes

1. Ineffective Airway Clearance related to patientls inability to clear airway and evidenced by respiratory status of cough, respiratory rate, sputum, and crackle sounds (Phelps, 2023).

Outcome- 1. **Adventitious breath sounds will be eliminated (Phelps, 2023).**

.Assess respiratory status at least every 4 hours (Phelps, 2023).

Ineffective Breathing Pattern as as related to a history of a respiratory disorder (Chronic Obstructive Pulmonary Disease) and evidenced by presence of cough and difficulty breathing. (Phelps, 2023).

Turn patient every 2 hours. Position for maximum

Outcome- Patient's respiratory rate will be within (Phelps, 2023). **ventilation (Phelps, 2023).**

Objective Data

-Fine inspiratory crackles heard in the mid-posterior right lower lobe

- Pulse and temperature are within normal range

-Abnormal vital sign of respiratory rate of 22, blood pressure of 126/84 and O2 is 94%

-No accessory muscle use

X-ray of the chest (single view)

-Findings include interstitial opacities in the right

lower lung- most likely pneumonia and mild left

opacities, most likely atelectasis.

Client Information

D.W.- 74-year-old African American Female

-Presented in E.R. on 10/11/23

-Generalized weakness and short of breath upon admission

1. Observe for signs of respiratory distress (Phelps, 2023).

Nursing Interventions

Assist patient into comfortable positions, supporting upper extremities and elevating the head of the bed to promote chest expansion (Phelps, 2023).